

Appl. No. : 09/734,475  
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### AMENDMENTS TO THE CLAIMS

Please cancel Claims 1-6 and 18-21, and add new Claims 22-41.

1. - 21. (Canceled)

22. (New) A method of delivering a surround-sound audio signal over the Internet to a client using Internet stereo sound streaming techniques, the method comprising:

- providing a 5.1 channel audio input signal at an Internet broadcast location;

- encoding the 5.1 channel audio input signal into two channels of transmit audio;

- converting the two channels of transmit audio into a streaming format for transmission over the Internet;

- transmitting the streaming format to a client location;

- reconverting the streaming format into two channels of receive audio;

- decoding the two channels of receive audio into a 5.1 channel audio output signal;

- processing the 5.1 channel audio output signal into a two-channel audio output signal, wherein the two-channel audio output signal is configured to simulate 5.1 channel audio when played on a pair of loudspeakers; and

- enhancing the two-channel audio output signal for playback by the client, said enhancing comprising:

- correcting a perceived height of an apparent sound stage associated with the two-channel audio output signal;

- enhancing a bass response associated with the two-channel audio output signal comprising:

- filtering the two-channel audio output signal at a first frequency with a first band pass filter;

- filtering the two-channel audio output signal at a second frequency with at least a second band pass filter, wherein the second frequency is different than the first frequency; and

filtering the two-channel audio output signal at a third frequency with a third band pass filter, wherein the third frequency is different than the first and second frequencies; and  
correcting a perceived width of the apparent sound stage associated with the two-channel audio output signal.

23. (New) The method of Claim 22 wherein the client represents an individual personal computer user.

24. (New) The method of Claim 22 wherein encoding comprises encoding using a Circle Surround 5.1 encoder.

25. (New) The method of Claim 22 wherein decoding comprises decoding using a Circle Surround 5.1 decoder.

26. (New) The method of Claim 22 wherein providing a 5.1 channel audio input signal comprises providing a Circle Surround encoded 5.1 audio input signal.

27. (New) The method of Claim 22 further comprising:

determining whether the Internet location is a licensed broadcast location prior to processing the 5.1 channel audio output signal into the two-channel audio output signal and prior to enhancing the two-channel audio output signal; and

permitting the processing of the 5.1 channel audio output signal into the two-channel audio output signal and the enhancing of the two-channel audio output signal when the Internet location is a licensed broadcast location.

28. (New) The method of Claim 22 further comprising downloading to the client location a browser interface comprising audio enhancement.

29. (New) An apparatus for delivering a surround-sound audio signal over the Internet to a client using Internet stereo sound streaming techniques, the apparatus comprising:

an encoder to encode a 5.1 channel audio input signal at an Internet broadcast location into two channels of transmit audio;

a first converter to convert the two channels of transmit audio into a streaming format for transmission over the Internet;

a transmitter to transmit the streaming format to a client location;

a second converter to reconvert the streaming format into two channels of receive audio;

a decoder to decode the two channels of receive audio into a 5.1 channel audio output signal;

a processor to process the 5.1 channel audio output signal into a two-channel audio output signal, wherein the two-channel audio output signal is configured to simulate 5.1 channel audio when played on a pair of loudspeakers;

a sound enhancement system to enhance the two-channel audio output signal for playback by the client, the sound enhancement system comprising:

an image correction module to correct a perceived height of an apparent sound stage associated with the two-channel audio output signal;

a bass enhancement module to enhance a bass response associated with the two-channel audio output signal comprising:

a first band pass filter that filters the two-channel audio output signal at a first frequency;

a second band pass filter that filters the two-channel audio output signal at a second frequency, wherein the second frequency is different than the first frequency; and

a third band pass filter that filters the two-channel audio output signal at a third frequency, wherein the third frequency is different than the first and second frequencies; and

an image enhancement module to enhance a perceived width of the apparent sound stage associated with the two-channel audio output signal.

30. (New) The apparatus of Claim 29 wherein the client represents an individual personal computer user.

31. (New) The apparatus of Claim 29 wherein the encoder comprises a Circle Surround 5.1 encoder.

32. (New) The apparatus of Claim 29 wherein the decoder comprises a Circle Surround 5.1 decoder.

33. (New) The apparatus of Claim 29 wherein the 5.1 channel audio input signal comprises a Circle Surround encoded 5.1 audio input signal.

34. (New) The apparatus of Claim 29 further comprising a licensed broadcast location, wherein the 5.1 channel audio output signal is processed into the two-channel audio output signal and the two-channel audio output signal is enhanced when the Internet location is a licensed broadcast location.

35. (New) The apparatus of Claim 29 further comprising a browser interface comprising audio enhancement at the client location.

36. (New) An apparatus for delivering a surround-sound audio signal over the Internet to a client using Internet stereo sound streaming techniques, the apparatus comprising:

- means for encoding a 5.1 channel audio input signal into two channels of transmit audio;

- means for converting the two channels of transmit audio into a streaming format for transmission over the Internet;

- means for transmitting the streaming format to a client location;

- means for reconvertng the streaming format into two channels of receive audio;

- means for decoding the two channels of receive audio into a 5.1 channel audio output signal;

- means for processing the 5.1 channel audio output signal into a two-channel audio output signal, wherein the two-channel audio output signal is configured to simulate 5.1 channel audio when played on a pair of loudspeakers; and

- means for enhancing the two-channel audio output signal for playback by the client, said enhancing comprising:

- means for correcting a perceived height of an apparent sound stage associated with the two-channel audio output signal;

- means for enhancing a bass response associated with the two-channel audio output signal comprising:

means for filtering the two-channel audio output at a first frequency;

means for filtering the two-channel audio output at a second frequency, wherein the second frequency is different than the first frequency; and

means for filtering the two-channel audio output at a third frequency, wherein the third frequency is different than the first and second frequencies; and

means for correcting a perceived width of the apparent sound stage associated with the two-channel audio output signal.

37. (New) The apparatus of Claim 36 wherein the client represents an individual personal computer user.

38. (New) The apparatus of Claim 36 wherein the means for encoding comprises a means for Circle Surround 5.1 encoding.

39. (New) The apparatus of Claim 36 wherein the means for decoding comprises a means for Circle Surround 5.1 decoding.

40. (New) The apparatus of Claim 36 wherein the 5.1 channel audio input signal comprises a Circle Surround encoded 5.1 audio input signal.

41. (New) The apparatus of Claim 36 further comprising:

a means for determining whether the Internet location is a licensed broadcast location prior to processing the 5.1 channel audio output signal into the two-channel audio output signal and prior to enhancing the two-channel audio output signal; and

a means for permitting the processing of the 5.1 channel audio output signal into the two-channel audio output signal and the enhancing of the two-channel audio output signal when the Internet location is a licensed broadcast location.